

(3) Standard drawings of the following fabrication details shall be submitted:

(i) Welding details for piping connections.

(ii) Welding details for nonstandard fittings (when appropriate).

(d-1) Plans of piping for industrial systems on mobile offshore drilling units must be submitted under subpart 58.60 of this subchapter.

(e) Where piping passes through watertight bulkheads and/or fire boundaries, plans of typical details of piping penetrations shall be submitted.

(f) Arrangement drawings specified in paragraph (c)(2) of this section are not required if—

(1) The location of each component for which there is a location requirement (i.e., shell penetration, fire station, foam monitor, etc.) is indicated on the piping diagram;

(2) The diagram includes, or is accompanied by and makes reference to, a material schedule which describes components in sufficient detail to substantiate their compliance with the regulations of this subchapter;

(3) A thermal stress analysis is not required; and

(4) A dynamic analysis is neither required nor elected in lieu of allowable stress reduction.

[CGFR 68-82, 33 FR 18843, Dec. 18, 1968, as amended by CGFR 69-127, 35 FR 9978, June 17, 1970; CGFR 72-59R, 37 FR 6189, Mar. 25, 1972; CGD 73-251, 43 FR 56799, Dec. 4, 1978, CGD 77-140, 54 FR 40602, Oct. 2, 1989; CGD 95-012, 60 FR 48049, Sept. 18, 1995]

Subpart 56.04—Piping Classification

§ 56.04-1 Scope.

Piping shall be classified as shown in Table 56.04-1.

TABLE 56.04-1—PIPING CLASSIFICATIONS

| Service | Class | Section in this part |
|-----------------------|-----------------|----------------------|
| Normal | I, II | 56.04-2 |
| Low temperature | I-L, II-L | 56.50-105 |

[CGD 72-206R, 38 FR 17229, June 29, 1973, as amended by CGD 77-140, 54 FR 40602, Oct. 2, 1989; CGD 95-012, 60 FR 48049, Sept. 18, 1995]

§ 56.04-2 Piping classification according to service.

The designation of classes according to service is found in Table 56.04-2.

TABLE 56.04-2—PRESSURE PIPING CLASSIFICATION

| Service | Class ¹ | Pressure (p.s.i.g.) | | Temp. (°F) |
|---|--------------------|------------------------|------------------------|---------------------------|
| Class B and C poisons ² | I | any | and | 0 and above. |
| | I-L | any | and | below 0. |
| | II | (³) | (³) | (³) |
| | II-L | (³) | (³) | (³) |
| Gases and vapors ² | I | above 150 | or | above 650. |
| | I-L | above 150 | and | below 0. |
| | II | 150 and below | and | 0 to 650. |
| | II-L | 150 and below | and | below 0. |
| Liquefied flammable gases ² | I | above 150 | and | 0 and above. ¹ |
| | I-L | above 150 | and | below 0. |
| | II | 150 and below | and | 0 and above. |
| | II-L | 150 and below | and | below 0. |
| Molten sulphur | I | above 225 | or | above 330. |
| | II | 225 and below | and | 330 and below. |
| Cargo liquids Grades A through D ² | I | above 225 | or | above 150. |
| | I-L | above 225 | and | below 0. |
| | II | 225 and below | and | 0 to 150. |
| | II-L | 225 and below | and | below 0. |
| Cargo liquids Grade E | I | above 225 | or | above 400. |
| | I-L | above 225 | and | below 0. |
| | II | 225 and below | and | 0 to 400. |
| | II-L | 225 and below | and | below 0. |
| Water | I | above 225 | or | above 350. |
| | II | 225 and below | and | 350 and below. |
| Fuels (Bunker, diesel, gasoline, etc.) | I | above 150 | or | above 150. |
| | II | 150 and below | and | 150 and below. |
| Lubricating oil | I | above 225 | or | above 400. |
| | II | 225 and below | and | 400 and below. |